## **HOLYOKE COAL TAR SITE (RTN 1-1055)**

LOCATION	Holyoke
DATE OF INJURY	1900's
DATE OF SETTLEMENT	June 2004
NRD SETTLEMENT	\$500,000
RESPONSIBLE PARTY	Holyoke Gas & Electric Department (HG & E) and Holyoke Water Power Company
TRUSTEES	NOAA, DOI-USFWS, EOEA
	Release of coal tar into the Connecticut River resulting from the manufacturing of combustible gas from coal for about 100 years.
INJURED RESOURCES	Various aquatic resources in the Connecticut River
INJURED SPECIES	Endangered species
PROTECTED SPECIES	Short nose sturgeon and rare freshwater mussels
RESTORATION STATUS	Trustees to develop a Restoration Plan identifying restoration alternatives
PROJECTS COMPLETED	N/A
<b>EXPENDITURES TO DATE</b>	N/A
ACRES RESTORED	N/A
	http://www.ago.state.ma.us/sp.cfm?pageid=986&id=1252
ADDITIONAL WEBSITES	http://test.env.state.ma.us/water/publications/Connecticut/Connecticut_WAP_2003.pdf

## **History**

The former Holyoke Gas Works in Holyoke manufactured gas from coal and oil to produce town gas for residential, commercial, and industrial heating and lighting from 1852 to 1950's. This manufactured gas plant ("MGP") produced MGP tar during its near century-long operations. Releases of MGP tar attributable to the Site have caused injuries to natural resources of the Connecticut River including riverine benthic habitat, shortnose sturgeon, and rare freshwater mussels. Trustees have also considered injuries to other finfish, aquatic benthic invertebrates, and other wildlife.

Two types of MGP tar patches, "hard" and "soft," have been characterized in the vicinity of the Site. Both types of tar patches are inhospitable to burrowing benthic fauna, such as freshwater mussels, and to some epifauna that rely on coarser-textured substrates for shelter. A decrease in the benthic community produces a decrease in the foraging opportunities for other components of the ecosystem, such as finfish. In this manner, MGP tar patches produce ecological damage by destroying habitat for benthic organisms and for the organisms that depend on the benthic community as food.

The DEP has overseen Site remedial excavations of tar in the Connecticut River, beginning in 2002 and estimated to occur over several years.

## **Resources of Concern**



Dwarf wedge mussel (Alasmidonta heterodon):

Relatively small, rarely exceeding 1.5 inches in length. The shell's outer surface is usually brown or yellowish brown in color, with faint green rays that are most noticeable in young specimens.





NHESP Biologists (Marea Gabriel & Jennifer Loose) and NRD Case Manager (Tanya Baker) surveying for Dwarf Wedge mussels in Connecticut River watershed



Shortnose sturgeon (Acipenser brevirostrum ):

The shortnose sturgeon is one of two sturgeon species in the Connecticut River; the other is the Atlantic sturgeon. The shortnose is the smaller of the two, growing to be 2 to 3 feet in length and about 14 pounds in weight. Sturgeons are an ancient species with fossils dating back 65 million years. They are very distinctive, looking like a prehistoric cross between a shark and a catfish. Sturgeons lack teeth and scales but have a unique body armor of diamond-shaped bony plates called scutes. Some have been found to be over 60 years old.







Special Thanks to the Trustees